

# Financing Small Business in the Postwar Period

## Summary

**T**HE present article presents a brief description of, and some of the preliminary findings in, a projected comprehensive study of business financing by the Office of Business Economics. As originally planned, the survey was to investigate financial requirements of small and medium size firms in business and the adequacy of available funds under the conditions prevailing in the later postwar period. The outbreak of Korean hostilities and the subsequent changes in the characteristics of the economy necessitated the cancellation of the major part of this study at this time—though it is expected a similar large-scale survey will be undertaken at a later date.

Preliminary steps were completed, however, and in view of the general interest in the subject it was felt advisable to present some of the tentative findings. The initial sample study was confined to a small number of small and intermediate size manufacturing and retail trade firms in business during the 12-month period ended June 30, 1950.

In this period, the survey indicated, two out of three firms financed their requirements from internal sources.

The majority of small businesses needing outside capital were satisfied with the amount of funds available.

Demand for outside funds by these latter firms was primarily in the form of borrowed, rather than equity, capital.

Banks were the major source of these funds, but other financial institutions, friends and relatives constituted an important auxiliary source of financing.

While working capital requirements accounted for the principal share of total demand for outside funds, longer term requirements were also important in the demand picture.

The cost of capital funds did not appear to be a deterrent to borrowing in the period surveyed.

The amount of funds desired but not obtained accounted for roughly \$1 billion or about one-sixth of the total demand. This unsatisfied demand, largely in manufacturing, could not be evaluated as to reasonableness or economic soundness on the basis of information now available. In the larger study such an evaluation will be attempted.

This discussion of small business financing in the postwar period is based on the preliminary findings in a projected major study of business financing by the Office of Business Economics. The purpose of the survey as planned was to investigate the total demand for equity and debt capital by business, the extent to which this demand remains unfilled under present institutional and market conditions, and the nature of the unfilled demand.

### Plan of broad study

The information was to be obtained from mailed questionnaires sent to approximately 20,000 firms. The concerns were to be chosen on the basis of scientifically designed sampling procedures. It was hoped to obtain balance sheet and earnings information from a smaller sub-sample, including all who indicated unfilled needs for capital. After analysis of the replies and related financial data it was planned to contact not only the firms which were unable to obtain funds although appearing to meet objective standards of soundness,

but also their potential suppliers of funds in order to determine the major factors giving rise to any gap in the demand-supply situation.

The period for which the study was planned and for which the preliminary results were obtained—the year ended June 30, 1950—appeared to be exceptionally favorable for such a study. The latter part of 1949 featured mild recessionary tendencies, with some moderate price reductions, inventory liquidation and a slackening of the pace of economic activity. By early 1950, these developments had for the most part run their course and renewed expansionary trends were in evidence. For the period as a whole, conditions were still very prosperous with output maintained at close to peak postwar rates, and consumer and business demand continuing relatively high. While some tightening of bank credit was apparent during and after the period of inventory reductions, the cost of borrowed funds remained at the relatively low rates which had prevailed throughout the war and postwar period.

Quantitative information on the nature and amount of unfilled business demand for funds under such circumstances is almost entirely lacking, and data on the actual volume of

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outside funds received are at best incomplete or very fragmentary. The few prior studies along the lines contemplated in the OBE study were not only not so comprehensive but dealt for the most part with financing under depressed conditions in industry generally. Hence, it was extremely difficult to differentiate between the various institutional and cyclical factors involved.

Work on the project was temporarily halted following the outbreak of Korean hostilities. New problems of financing in the changed economic situation came to the foreground but they were basically different in character from those which would be encountered in more normal peacetime conditions.

### *Preliminary steps taken*

Some preliminary steps were completed, however, covering the period ended June 30, 1950. These included (1) field interviews with approximately 100 business firms to test the feasibility of the approach, and (2) the mailing of questionnaires to a small random sample of 200 firms and tabulation information received from three quarters of these firms. This sample was to serve as a test of the nature and meaningfulness of the response which might be expected from the larger study.

The results of the preliminary stages of the survey were thought to be both promising and interesting and it is hoped that the larger project will be carried out at some later time. Pending this development it was deemed desirable to publish the quantitative and other information gained from the initial stages of the study.

### *Limitations on interpretation of results*

One cannot stress too much the very tentative nature of the quantitative information obtained thus far from the study. First, the sample used was very small and hence the data reported are subject to a substantial margin of error. Secondly, the information at hand does not permit the fulfilling of one of the principal purposes of the study—an evaluation of the nature of the unfilled demand.

### *Coverage of study*

At an early stage in the planning of the study, it was decided to concentrate attention on the smaller business firms already in existence.<sup>1</sup> It was felt that the major gap in available information on business financing was in this field.

The study was confined to manufacturing and retail trade. Use was made of the records of the Bureau of Old-Age and Survivors Insurance for the first quarter of 1948 in choosing a random sample of 100 firms in each of these two industries, eliminating the larger corporations registered with the Securities and Exchange Commission. Data for the 1948 quarter were the latest available at the time the sample was pulled.

It should be noted, however, that since the files of the Bureau of Old-Age and Survivors Insurance served as the basis of the sample, and these files do not cover firms with no employees, there is a significant omission in the sample results relating to this numerically important smallest size group. This omission probably means that the results tend to understate the financial problems of small businesses and to overstate the degree of their financial independence since the omitted group is heavily weighted with relatively new concerns, frequently undercapitalized and generally unseasoned.

Thus the universe to which the sample data apply includes all firms in manufacturing and retail trade other than those with no employees and those which are registered with the

Securities and Exchange Commission. The latter include virtually all the very large firms. Basically the sample refers to small and intermediate size firms, in which the smaller size group was predominant. The largest manufacturer in the sample—a nonborrower in the period surveyed—employed 261 people in the first quarter of 1948; the largest borrowing manufacturer employed 168 persons in the 1948 period. Among retailers, the largest in the sample employed 30 persons in 1948. For brevity, the universe represented in the sample will be referred to as "small business" in this article, although it does not correspond to any precise definition of small business.

### *Response bias*

Before discussing the sample results, it should be mentioned that these findings are subject not only to the errors of sampling already referred to but to a bias from the nature of the response, i. e., those responding may or may not have been typical concerns from the point of view of financial problems encountered by businesses in the smaller size categories. The direction of any such bias which does exist is not known at this time.

In view of the unusually high response—information on business status was obtained from three-quarters of the firms sampled, either from the response to the original questionnaire or from the followup—and in view of the similarity of the results obtained from the original and followup respondents, it is felt that the response bias is probably small.<sup>2</sup> Within the limits of the sampling errors, therefore, it is felt the quantitative data are sufficiently accurate to serve as the basis for some generalizations.

### *Postwar setting for study*

These generalizations, it must be noted, should be viewed not only in the light of the period in which the sample study was made but of the recent preceding financial history. While as indicated above, the period covered by the study was one of generally prosperous conditions, it may be noted the total demand for business capital funds was at a relatively low level for the postwar period. Although fixed capital requirements were still close to the postwar peak, new working capital needs were low, with the upward trend of inventories and receivables actually reversed in the latter part of 1949 and only renewed on a modest scale in the first half of 1950. On the other hand, a number of firms reported—both in the interviews and in answers to the questionnaire—that banks and other lenders in late 1949 and early 1950 were pressing for inventory liquidation and in the process were more reluctant than formerly to make or renew business loans.

## **Principal Findings**

### *Little demand for outside equity capital*

One of the interesting and significant features of the pretest results was the almost total lack of indication that existing small firms were looking for outside equity capital. Thus the bulk of equity funds used and demanded by small business is made up of original equity investment and retained earnings. (In this connection, it may be noted that since the sample was confined to existing firms, demand for capital in setting up new business was excluded from the survey.<sup>3</sup>)

In the pretest interviews, there was some evidence that firms would have been interested in such financing but did not seriously consider the prospect for a variety of reasons. There are two major aspects of the equity capital question as it pertains to small business which apparently explain the

<sup>1</sup> For the results presented in the text, the universe is actually confined to those firms in existence in the first quarter of 1948 and continuing in existence throughout the period covered by the survey. Previous OBE studies have analyzed some of the financial characteristics of new businesses. See issues of the Survey of Current Business for December 1948, April 1950 and April and June 1951.

<sup>2</sup> For further discussion of the response, see technical notes at the end of the article.  
<sup>3</sup> See studies previously referred to in footnote 1.

dearth of demand for equity funds. In the first place, most small businesses are effectively shut out from the organized equity capital markets because of the generally localized nature of the business and the very high cost of raising small amounts of equity funds.

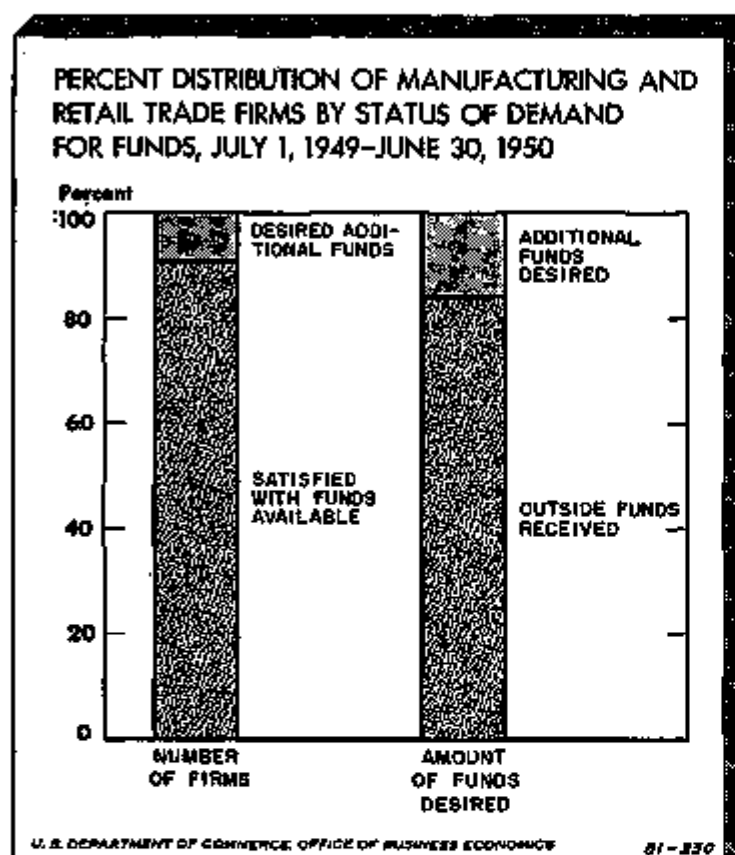
Secondly, a number of studies have found that even if outside equity capital were available to small businesses, there would be considerable reluctance to make use of such funds for fear of diluting the control or earnings interest in the busi-

ness. The only sizable group of unsatisfied borrowers were the manufacturers who had obtained some funds but felt that they could have used larger amounts. The sample revealed but a negligible proportion of small businessmen in both manufacturing and retailing who desired outside funds but were unable to obtain any funds.<sup>4</sup>

Table 1.—Percentage Distribution of Firms in Sample by Status of Demand for Funds, July 1, 1949–June 30, 1950

[Percent]			
Type	Wanted more funds	Satisfied with funds obtained	Total
Borrowers.....	14	86	100
Nonborrowers.....	2	98	100
Total.....	6	94	100
Manufacturers.....	16	84	100
Retailers.....	4	96	100
Total.....	6	94	100

Source: U. S. Department of Commerce, Office of Business Economics.



ness. Very often small businesses are family affairs in which the owner does not wish to share earnings or control with "outside" interests. Thus, it is not too surprising that the bulk of the demand for outside funds by small businessmen was in the form of loan capital.

### Demand for borrowed funds

The demand for borrowed funds by the sample firms is shown in the above chart and in table 1. From these data it seems clear that during the period covered in the study—July 1, 1949 to June 30, 1950—the large majority of small businessmen in manufacturing and retail trade encountered no striking difficulties in financing their capital requirements. Roughly two out of three concerns in each of these industries were able to finance their needs from internal sources. An additional group, accounting for 30 percent of the respondents in retail trade, and one-fifth of the manufacturers in the sample, while needing to borrow funds, received all the money they considered necessary. Thus roughly 85 percent of the manufacturers and about 95 percent of the retailers sampled were apparently satisfied with the volume of funds available to them.

The remaining firms—15 percent in manufacturing and about 5 percent in retailing—were unable to obtain all the funds they considered necessary for most efficient operation or expansion of their business. As is indicated by the table

It is interesting to note that the average size of the additional amounts sought but not obtained was actually larger than the average of the amounts actually received. This is indicated in the first chart by a comparison of the areas shown for the "unmet demand" as measured by number of loans (the left-hand bar) and by the amount of the loan desired (the right-hand bar). This result reflects in part the predominance of corporate manufacturers in the group wishing to borrow more than received—since these manufacturers typically borrowed larger sums than the non-corporate manufacturers or retailers. It also reflects however the unsatisfied desire to obtain longer term financing of major capital expansion programs which were considered necessary or desirable by the firms.

Based on the findings of the sample, the total gross demand for loans by existing small and medium size manufacturing and retail firms in the year ended June 30, 1950, amounted to about \$6 billion, of which about \$5 billion was actually received and in the neighborhood of \$1 billion, or one-sixth, was desired but not obtained. Because of the very small size of the sample, these absolute figures are subject to a substantial margin of error. For this reason the figure should not be regarded other than as a rough order of magnitude of the demand for loans by small firms.<sup>5</sup>

It should also be noted that the \$5 billion figure represents gross loans made in the period, reflecting not only the original lending operation but all renewals of existing loans.<sup>6</sup> The total also includes not only loans from banks but also borrowings from insurance companies and other institutional lenders, equipment suppliers, friends, and relatives. It does not include ordinary trade payables.

### Legal status and industry of borrowers

As may be seen from table 2, the volume of borrowing during the period was fairly evenly divided between corporate and noncorporate firms and between manufacturers and retailers. That the manufacturing industry (in which the corporate form of organization is relatively more important) did not account for a larger share of the funds borrowed by small business may seem somewhat surprising at first glance,

<sup>4</sup> It should be recalled the information derived from the sample probably tends to understate the financial needs of small business since the new firms and firms with no employees were excluded from the sample.

<sup>5</sup> The universe to which these figures apply should also be borne in mind. It includes only those firms with one or more employees which were not registered with the Securities and Exchange Commission and which were in existence in the first quarter of 1949 and continued in existence through the second quarter of 1950. Firms with no employees, registered companies, and relatively new businesses are excluded.

<sup>6</sup> Counting only the original amount of loans made, the aggregate borrowing totaled about \$4 billion, with renewals accounting for the remaining billion dollars.

particularly in the light of earlier studies which indicated that manufacturing was of greater relative importance. For example, in a survey of small business bank loans outstanding made by the Board of Governors of the Federal Reserve System in late 1946, it was found that manufacturers accounted for about three-quarters of the volume of loans outstanding to the account of manufacturers and retailers.

Table 2.—Aggregate Amount Borrowed by Small Business, by Industry Group and Form of Organization, July 1, 1949–June 30, 1950

Industry and legal status	Aggregate amount (billions of dollars)	Percentage distribution
Total.....	4.6	100
Manufacturing.....	2.4	50
Retail trade.....	2.4	50
Corporate.....	2.3	48
Noncorporate.....	2.5	52

Source: U. S. Department of Commerce, Office of Business Economics.

Sampling errors may well account for an important part of such different results but a few other factors should be noted in these comparisons with other findings, such as differences in coverage and in the periods in which the studies are made. The Federal Reserve study, for example, referred only to bank loans whereas the OBE study covered all loans. There is some indication in the findings from the OBE sample that in retailing somewhat greater dependence was placed on nonbank sources of loans.

Perhaps of even greater importance in explaining the relatively high proportion of retail borrowing compared with loans to small manufacturers may be the characteristics of the period in which the OBE study was made. As indicated above, the period was one of considerable readjustment in inventories particularly in the latter part of 1949. With retail business and inventories better maintained than manufacturing, it is possible that the pressure for loan reduction was less in evidence in retailing than in manufacturing.

### Sources of funds

One of the more important aspects of the Commerce study of small business financing is the attempt to place in perspective the relative importance of the various sources of financing small business, which, taken in conjunction with the known information on sources of funds for large concerns, will make possible the elimination of a major gap in information on sources of financing for business in general.

Table 3.—Percentage Distribution of Number and Aggregate Amount of Small Business Loans by Source of Loan, July 1, 1949–June 30, 1950

[Percent]		
Source	Number of loans	Aggregate amount
Bank.....	90	78
Other.....	10	21
Total.....	100	100

Source: U. S. Department of Commerce, Office of Business Economics.

While the pretest results clearly confirm the recognized predominance of commercial banks in the field of financing small businesses' normal requirements, it is equally clear from the data thus far collected that nonbank sources constitute an important auxiliary method of financing small business (table 3 and chart on this page). One out of every five loans made to small business in manufacturing and trade

was carried with financial agencies other than banks, and these loans accounted for about one-sixth of the aggregate amount loaned. The chief nonbank financial sources of funds were insurance companies (through policy loans) and small loan concerns. Including loans made by friends and relatives, nonbank sources accounted for about one-third of the number of loans made and 20 percent of the aggregate amount loaned.<sup>7</sup>

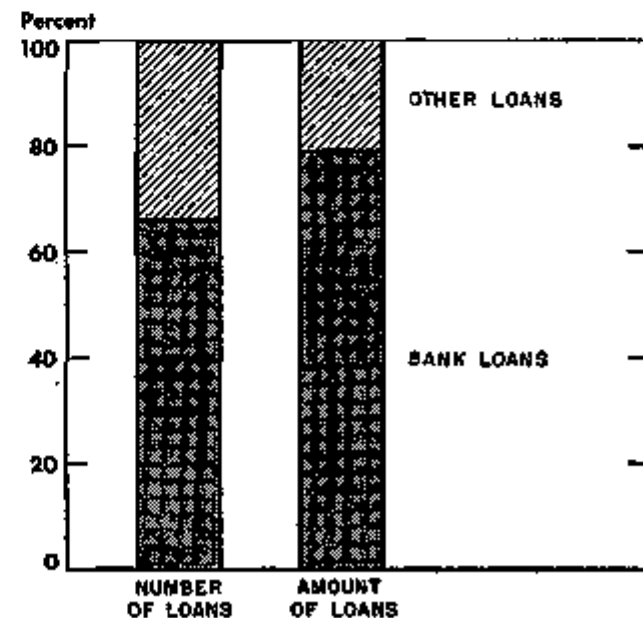
Information supplied in the preliminary stages of the study suggests that in large degree these nonbank sources of funds were regarded by the borrowers as "lines of last resort." A number of businessmen were reluctant to "mortgage" their insurance savings, to apply to small loan companies to appeal to their relatives and friends. They did so when the necessary funds could not be obtained from other sources.

### Term lending important

The preliminary findings from the sample survey testify to the importance of intermediate and longer term borrowing in meeting the financial requirements of small business in the postwar period. Loans of one year or more accounted for about one-fourth of the borrowing of small manufacturing and retailing firms in the period of the survey, both in terms of the number and amount of loans, while a similar proportion of transactions involved the intermediate type borrowing with maturities ranging from 91 days to one year (table 4). Thus only about 50 percent of the borrowing related to shorter maturities of 90 days or less. These findings appear to be in line with the recognized trend in recent years toward increased emphasis on term lending to business.

Despite the growing importance of term borrowing in the postwar period, information revealed by the pretest results suggests that the availability of long-term funds still consti-

PERCENT DISTRIBUTION OF NUMBER AND AMOUNT OF SMALL BUSINESS LOANS BY SOURCE OF LOANS, JULY 1, 1949–JUNE 30, 1950



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<sup>7</sup> Included in the loans received from nonfinancial sources are small amounts received from equipment suppliers.

tutes one of the major problems in small business financing. In the absence of more adequate equity financing it appears that a considerable unmet demand for long-term borrowed capital exists among small business firms.

The pretest sampling information does not permit a breakdown of the term loans made into relatively shorter or longer maturities. Other studies, such as that of the Federal Reserve Board in 1946, show that the bulk of term lending to small business is for from one to three years. On the other hand, the pretest information obtained suggests that a significant portion of the unfilled demand for funds on the part of small business is for longer-term funds of from 5 to 10 years.

Table 4.—Percentage Distribution of Number and Aggregate Amount of Small Business Loans by Maturity of Loans, July 1, 1949–June 30, 1950

[Percent]		
Maturity	Number of loans	Aggregate amount
90 days or less	54	45
91 days but less than 1 year	22	29
1 year or more	24	26
Total	100	100

Source: U. S. Department of Commerce, Office of Business Economics.

### Importance of small loans

Data presented in table 5 and the chart on this page clearly reveal the importance of the small loan in the financing of the smaller sized firms. Roughly two out of three business loans made in the period surveyed involved sums of less than \$5,000. Intermediate sized loans of from \$5,000 to \$25,000 accounted for an additional 30 percent of the total number of loans made. As might be expected these smaller sized loans represented a substantially smaller fraction in terms of dollars borrowed, with loans in the less than \$5,000 class accounting for only one-fifth of the aggregate lending. At the other extreme, the bigger loans—\$25,000 and over—which accounted for roughly 5 percent of the number of loans, involved two-fifths of the aggregate borrowing by small business.

### Terms of borrowing

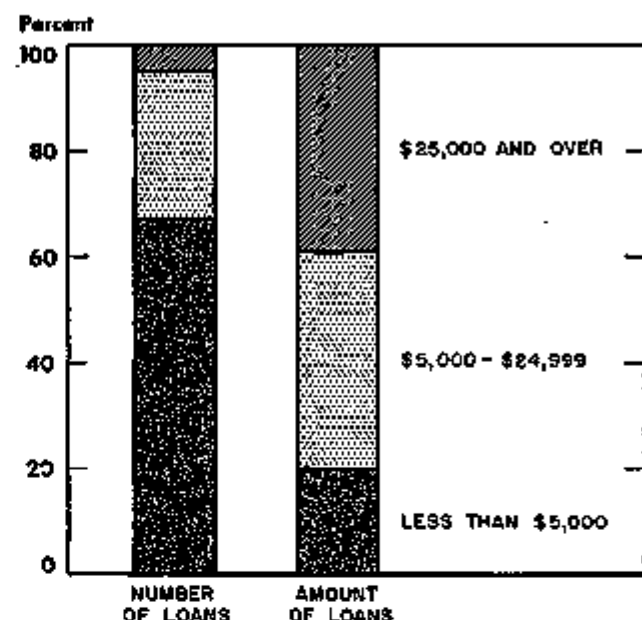
In the light of the generally prosperous conditions prevailing in the postwar period, and the general ease in the postwar money market, it is not surprising that the cost of borrowing did not appear to have been a significant factor in determining the availability or amount of funds borrowed. While the overall average, 4.8 percent, may appear to be on the low side, it may be seen from table 6 that the average is dominated by the shorter maturities which carry somewhat lower interest rates than the term loans of 1 year or more.

The frequency distribution of loans by interest charged, as shown in table 7, presents a somewhat different aspect of the question. The median interest rate, for example, is somewhere in the neighborhood of 5½ percent either in terms of number or dollar amount of loans made.<sup>8</sup> A sizable number of borrowers were required to pay at a rate in excess of 6 percent.

A more serious consideration shaping the course of borrowing activity was the collateral requirements demanded by lenders. Generally speaking both actual borrowers and those who wanted but did not get funds felt that lenders were asking

<sup>8</sup> It is possible that the actual interest charge reported by the sample firms tends to be understated, since the firms may not have reported all charges associated with loans made. It is possible, moreover, that some firms reported only the nominal rate of interest rather than the actual rate. The latter could be considerably higher than the former, particularly where the loan is repaid in installments.

PERCENT DISTRIBUTION OF NUMBER AND AMOUNT OF SMALL BUSINESS LOANS BY SIZE OF LOANS, JULY 1, 1949–JUNE 30, 1950



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for considerably more collateral than seemed justified by the size of the loan requested or the financial condition of the applicant.

### The "Unsatisfied Demand"

One of the most significant aspects of a broad study such as projected by the Office of Business Economics is the light that may be shed on the amount and nature of the demand for funds by small business which is not being met through existing institutional arrangements. An attempt was made not only to discover the demand of those firms which had been refused funds sought, including those who had part of their requests filled, but also those who had formulated a relatively clear plan of financing—including the amount thought necessary and the form of financing thought most suitable—but who had not attempted to raise the money for one reason or another.

As indicated earlier, the pretest results suggest that for small businessmen in the industries surveyed, this demand—predominantly in manufacturing—amounted to about one-sixth of the total demand and represented primarily funds desired in addition to amounts actually received. There is some indication from pretest interviews that a few firms may have failed to report demand for funds which they had previously considered but had not acted upon because they knew from past experience with their sources of financing there was little or no chance of receiving the capital.

On the basis of the information collected so far, it is not possible to analyze the nature of the unmet demand, such as, for example, how realistic it is in the light of the businessman's financial condition, or why the funds which might reasonably be expected by businessmen were not actually obtained.

Needless to say, however, sound economic reasons would dictate refusal of some of the "unsatisfied" demand reported in the study, and the broader survey, it is expected, would shed more light on this subject. A recent study by the Reconstruction Finance Corporation of small business loans

made or refused by that agency in 1948-49 may aid in placing some of the aspects of this problem in perspective.

### Reconstruction Finance Corporation experience

During 1948 and 1949 the RFC received over 18 thousand applications for loans involving \$2.7 billion. Action was taken on 13,479 cases, with approximately 4,000 being withdrawn before action was taken. It should be remembered that the terms of the law require that RFC aid be granted only after a showing that the funds requested by the borrower cannot be obtained from the usual private lending sources on reasonable terms and that the loan be so secured as reasonably to assure repayment.<sup>7</sup>

RFC action on these loans was as follows:

	Number	Percent	Amount (in mil- lions of dollars)	Percent
Approved.....	8,100	60	1,000	54
Declined.....	5,379	40	863	46
Total.....	13,479	100	1,863	100

Thus in this 2-year experience, RFC found that it was possible to authorize loans to 8 thousand applicants. These loans authorized by the RFC involved a sum of one billion dollars, or more than half of the total requests involved in the applications. On the other hand, loan applications turned down amounted to slightly less than a billion dollars, or 46 percent of the total.

A check on a sample of 300 loans authorized by RFC which had previously been refused by private lenders provides some clues as to the reason for the bank refusal and as to the credit worthiness of the borrower. The average authorization involved in these loans amounted to \$30,000 and no loan exceeded \$100,000.

The reasons given to the applicants by banks for refusal to make a loan are summarized in table 8.

Table 5.—Percentage Distribution of Number and Aggregate Amount of Small Business Loans by Size of Loan, July 1, 1949-June 30, 1950

(Percent)		
Size	Number of loans	Aggregate amount
Less than \$5,000.....	37	29
\$5,000-\$24,999.....	28	41
\$25,000 and over.....	5	30
Total.....	300	100

Source: U. S. Department of Commerce, Office of Business Economics.

It is clear from this table that the largest credit gap for small business in the private financing situation was for long term loans. Practically half of the banks which the borrowers approached refused the loan because of its long maturity. These loans refused ranged from two to ten years, with five years a fairly typical term.

Another interesting feature of this table is the relatively few instances—7 percent—in which the banks explicitly cited the risky or uncertain financial status of the borrower as the principal reason for refusal. Presumably, in a large proportion of cases, such considerations lay behind the other reasons given.

As may be seen, collateral deemed insufficient or unacceptable by the banks was also an important factor in the denials. In this connection the RFC made a study of the collateral offered by applicants who had been refused loans by the banks but who were granted loan authorizations by the RFC. In these cases it was found that the appraised value of

Table 6.—Average Interest Rate of Loans to Small Business by Length of Loan, July 1, 1949-June 30, 1950

Maturity	Interest rate
90 days or less.....	4.5
91 days but less than 1 year.....	4.8
1 year or more.....	5.4
Total Loans.....	4.8

Source: U. S. Department of Commerce, Office of Business Economics.

the collateral was 2½ times the loan value and 1.3 times the amount of the loan granted (the "loan" value of the collateral represents the appraiser's estimate of the value of the assets realizable if liquidation of the business were required, whereas the appraised value is the value of the asset to a going concern).

It is also possible from the RFC study to throw some light on the probable merit of the unfilled demand as revealed in the OBE sample survey. It will be recalled that the RFC rejected almost half of the loan applications acted on by that agency in 1948 and 1949. A study made of 3,225 denials in the year 1949 indicated that in over 60 percent of the cases insufficient collateral was the major reason for the decline,

Table 7.—Percentage Distribution of Number and Aggregate Amount of Loans to Small Business by Interest Rate, July 1, 1949-June 30, 1950

(Percent)		
Interest rate	Number of loans	Aggregate amount of loans
Less than 4.0.....	24	43
4.0-5.9.....	42	31
6.0-6.9.....	26	16
7.0 or more.....	8	11
Total.....	100	100

Source: U. S. Department of Commerce, Office of Business Economics.

with uncertain earnings ability, management factors or poor financial condition accounting for the majority of the remaining cases. A study of the collateral offered in these cases indicated an appraised value 1.6 times and loan value equal to 0.7 of the amount of the loan requested. In most of these cases of insufficient collateral, secondary yet important reasons were given for the refusal, principally the uncertain earnings ability of the applicant.

Such data would suggest that a part of the "unsatisfied fringe" uncovered in the OBE study included cases in which prudent lending policies by lenders would dictate refusal of a loan application. This is not to say, however, that in all of these cases, credit should be withheld from the firms seeking funds. It is possible some firms refused credit could prove to be satisfactory credit risks with respect to ability to pay the cost and principal of the loan requested. One of the principal objectives of the study outlined by the OBE will be to supply factual information on this question.

Table 8.—Reasons Why Banks Declined 300 Small Business Loans Authorized by RFC, 1948-49

Reason	Number of banks	Percent of total
Maturity too long.....	207	40.5
Bank policy.....	82	19.9
Unacceptable or insufficient collateral.....	56	12.6
Financial condition of borrower.....	31	7.0
"Brush off" or miscellaneous.....	89	20.0
Total.....	445	100.0

Source: Reconstruction Finance Corporation with regrouping of reasons by the U. S. Department of Commerce, Office of Business Economics.

<sup>7</sup> It is not certain, of course, that in the absence of the Reconstruction Finance Corporation all of the loans made by that agency would not have been made by other lenders.

## TECHNICAL NOTES

In overhauling the results derived from the small random sample of 200 firms, several tests for reasonableness are possible. In the first place, as indicated in the text, the actual response to the questionnaire was quite satisfactory, suggesting that the response bias is probably small. Of the 200 firm sample, comprehensive information was received from 137. From original replies and follow-ups, it is also known that 25 firms were out of business, or had moved and left no address. Two responding firms were eliminated because of the unsatisfactory nature of the response. Thus for only 40 firms was no information available.

A check of the original and responding firms suggests that those responding showed the same general characteristics as to industry and legal status as the original sample (table A). One of the more important aspects of the statistics collected is the fact that there was very little difference evident in the information supplied by those who answered without urging ("original response") and those who answered in the follow-up.

**Table A.—Percent Distribution of Firms in Original Sample of 200 and in Responding Firm Sample of 127 by Industry and Legal Status**

(Percent of total)		
Industry and legal status	Original sample	Responding firms
All firms.....	100	100
Corporate.....	30	30
Noncorporate.....	70	70
Manufacturing.....	50	51
Corporate.....	21	23
Noncorporate.....	29	28
Retail.....	50	49
Corporate.....	6	6
Noncorporate.....	44	43

Source: U. S. Department of Commerce, Office of Business Economics.

The data gathered from the random sample were also checked, where possible, against the information obtained from the initial field interviews of 100 firms. The interview results were not incorporated in the tabulations since the method of choosing these firms tended to involve businesses which may have had special financial problems and hence exaggerated the aggregate unmet demand.

## Sampling error

Some indication of the reliability of the various estimates given in the text may be seen from the "standard errors" involved. These errors show the extent to which any calculation based on a sample might vary from the figure which would be found if the calculation could be made for all firms in the universe. The calculation may be interpreted as follows: the chances are 68 out of 100 that the true figure for the universe would be within plus or minus one standard error of the estimates derived from the sample.

**Table B.—Comparison of Average Size of Small Business Loans in Department of Commerce Sample and Federal Reserve Board Survey<sup>1</sup>**

(Thousands of dollars)			
Industry and legal status	Commerce sample		Federal Reserve Board survey
	All loans	Bank loans only	
Total.....	5.9	7.3	6.6
Manufacturing.....	17.1	17.4	19.1
Retail trade.....	5.0	4.4	2.4
Corporate.....	11.0	13.4	17.5
Noncorporate.....	4.0	5.0	2.9

<sup>1</sup> "Member Bank Loans to Small Business," *Federal Reserve Bulletin*, August 1947, page 908.

Source: Board of Governors of the Federal Reserve System, U. S. Department of Commerce, and Office of Business Economics.

For the estimate of total borrowing of small firms, which amounted to about \$8 billion, the standard error is 1 billion dollars. The comparable standard error to the figure of "unfilled" demand is smaller absolutely, about \$30 million dollars, but much larger percentage-wise.

Information on the range of sampling error can also be computed for the percentages used in the text. Generally speaking, the error found in a percentage calculated from a sample will be considerably smaller than for an aggregate such as presented immediately above. It will be recalled that it was found (as shown in table 1) that 94 percent of the sample firms were satisfied with the amount of funds available while the remainder, or 6 percent, wanted more funds than received. The standard error for these percentages is 1.2 percent. "Errors" for the other percentages shown were also calculated, and in general compare in order of magnitude with the one just mentioned.

It would be desirable to check the results of the survey against other findings in the general field. Unfortunately the possibilities of such a check are limited, not only because of the dearth of similar studies, but because in the few instances where studies of small business financing have been undertaken, differences in coverage, procedure, and timing, make the meaningfulness of the comparison difficult to interpret.

Within this frame of reference, it is interesting to note that where checks are possible the results of the sample study compare rather favorably with the findings of the Board of Governors of the Federal Reserve System, which, in a study of business borrowing from banks in the latter part of 1948 made a special analysis of small business loans outstanding.<sup>10</sup> Tables B, C, and D present comparisons of some of the OBE and Federal Reserve survey results. It should be noted that the broad purposes of these two studies were quite different. The comparisons are made only for the purpose of examining the reasonableness of the results.

The FRB study was limited to member banks only. Since these banks are the relatively larger banking institutions in larger centers, there is undoubtedly an understatement of the influence of the very small concerns, which typically deal with the smaller nonmember banks. On the other hand, as has been pointed out in the text, the OBE sample contains an understatement of the very small concerns since it does not include firms with no employees.<sup>11</sup>

**Table C.—Percentage Distribution of Number of Bank Loans to Small Business by Industry Group and Form of Organization for Department of Commerce Sample and Federal Reserve Board Survey<sup>1</sup>**

(Percent)		
Industry and legal status	Commerce sample	Federal Reserve Board survey
Total.....	100	100
Manufacturing.....	21	34
Retail trade.....	79	66
Corporate.....	27	10
Noncorporate.....	73	84

<sup>1</sup> "Member Bank Loans to Small Business," *Federal Reserve Bulletin*, August 1947, page 908.

Source: Board of Governors of the Federal Reserve System; U. S. Department of Commerce, Office of Business Economics.

Table B compares the average size of bank loans found in the OBE sample with averages as revealed by the FRB study. In comparing these figures, it should be noted that even if the samples covered the same size firms, the OBE figures might normally be expected to be larger than those of the FRB. The FRB data refer to loans outstanding at a particular point of time and probably would tend on the average to be normally smaller than the size of the original loan. It is this latter magnitude that the OBE average reflects. In addition the period covered in the OBE study refers to a later part of the postwar period in which higher prices and levels of activity would probably call for somewhat larger sums to be borrowed.

As may be seen, the OBE averages are generally higher than those of the Federal Reserve Board. The one important exception is that of the corporate average for which the average loan is actually lower in the OBE sample. This exception reflects, apparently, the greater relative weight assigned in the OBE findings to trade corporations, with their lower average size of loan. Few returns were received for this group, and hence no great reliance can be placed in this finding.

Table C compares the percentage distribution of borrowers by legal status and industry. The Commerce study indicates a somewhat greater relative influence of corporations as against noncorporate borrowers and of retailers as against manufacturers. The orders of magnitude of the differences in the two studies are, however, hardly greater than might be explained either by the basic differences in the time periods involved or the possible "errors" in the estimates.

**Table D.—Percentage Distribution of Aggregate Amount of Bank Loans to Small Business by Industry Group and Form of Organization for Department of Commerce Sample and Federal Reserve Board Survey<sup>1</sup>**

(Percent)			
Industry and legal status	Commerce sample		Federal Reserve Board survey
	All loans	Bank loans only	
Total.....	100	100	100
Manufacturing.....	53	74	74
Retail trade.....	47	26	26
Corporate.....	51	48	48
Noncorporate.....	49	52	52

<sup>1</sup> "Member Bank Loans to Small Business," *Federal Reserve Bulletin*, August 1947, page 908.

Source: Board of Governors of the Federal Reserve System; U. S. Department of Commerce, Office of Business Economics.

The same general remarks would seem to be applicable to Table D showing the comparison in terms of aggregate bank borrowing by legal status. The 51-49 break in bank borrowing as between corporate and noncorporate business shown in the OBE sample compares with a 49-51 break-down in the Federal Reserve Board study—a difference which can hardly be described as significant in the light of possible sampling errors.

The differences shown in the industry break-down are more substantial with the OBE results indicating a much greater relative importance of trade than appears in the Federal Reserve Board study. This is due to the relatively large average size of loan shown for noncorporate retailers in the OBE study. It is not possible to assess at this point the extent to which there is an overstatement in the average loan size of noncorporate retailers in the OBE survey (or understatement in the Federal Reserve Study) or an understatement (relative to the Federal Reserve findings) of the average loans in other sectors.<sup>12</sup>

<sup>10</sup> See *Federal Reserve Board Bulletin*, August 1947.

<sup>11</sup> It is not possible to make a direct comparison of the opportunities in the definitions of small business used in the two studies. In the Federal Reserve Board study only manufacturers with less than \$750,000 of assets were included, and for retailers, total assets were required to be less than \$50,000. The OBE sample was chosen on the basis of employees as explained above in the text.

<sup>12</sup> In connection with the tables comparing the results of the two surveys, it should be noted that some differences may arise from the different classification procedures involved. In the Federal Reserve Board survey, borrowers were classified on the basis of bank records; in the OBE survey, the individual respondents were asked to check their classification as to industry and legal status. These firms had also been classified by the BOAST.

Taken by and large, it is felt that the information obtained gives a rough notion of the orders of magnitude associated with some of the broader aspects of small business financing. Perhaps most important of all is the indication received from the tests of the willingness and ability of businessmen to supply financial information, and that even without extensive and expensive field work, a highly significant body of data will be obtained from the larger study of small business financing.

#### *Note on blow-up procedure*

In deriving over-all estimates, it was necessary to apply appropriate blow-up factors to the sample results. Basically the ratios used were derived from business population figures

classified by industry and size (1-19 and 20 and over for manufacturing and 1-7 and 8 and over for retail trade). For example, in estimating the aggregate amount borrowed in manufacturing and retail trade, the average amount borrowed by the smaller and larger firms in each industry was first determined. These figures were then multiplied by the total number of firms in the respective size groups.

Estimates were calculated on two bases. First, in arriving at the appropriate weights, no distinction was made between those respondents who answered to the original request and those who answered only after a registered letter follow-up. Secondly, estimates were obtained by giving greater weight to the "follow-ups," assuming that they were more representative of the nonrespondents in the sample. There was comparatively little difference between the two sets of figures, and so, only one set—the latter—was incorporated in the discussion presented above.

### National Product and Income in the First Three Quarters of 1951

(Continued from page 10)

industries in which wage rates differ are also reflected, and may have been significant in the period under review. An exact breakdown of these elements is neither possible nor necessarily meaningful, but rough calculations suggest that the last of them—a shift toward higher-paying industries—played an appreciable part in raising average hourly earnings.

While the rise in hourly earnings was the most important influence in the aggregate, there were some industries, notably durable-goods manufacturing, where it was outweighed by the employment factor. Also, there were differentials over time in the relative importances of these two factors, with average hourly earnings accounting for a progressively greater, and employment for a lesser, share of the rise in employee compensation during recent quarters.

In the July-September period, in fact, employment in private industries edged downward; and average hours worked per week have declined slightly since the beginning of the year, following an appreciable rise during 1950. As a result of these developments, and with advances in hourly earnings also slowing down, the upswing of private payrolls was retarded in the second quarter and virtually halted in the third. In the distributive and service industries, where pay raises had lagged behind those granted earlier elsewhere, wages and salaries rose somewhat further after mid-year. But in the commodity-producing industries, including durable-goods manufacturing, they slipped below the second-quarter rate.

#### *Nonwage components of income flow*

Proprietors' and rental income as a whole moved up from 1950 to the first three quarters of 1951 by about the same proportion as total personal income. Nonagricultural business and professional proprietors' earnings, however, were considerably more sluggish than the personal income aggregate, as was rental income, while the reverse was true of farmers' earnings.

The latter, as already noted, rose proportionately more than any other principal form of personal income. Chiefly responsible for this favorable showing was the violent upward spurt in agricultural prices in the first 8 months after mid-1950, outstripping by a sizable margin the general price advance of the same period. Farm prices have declined in each month since February, but not nearly as fast as they rose until then. For this year through September, accordingly, the average remained far above that for 1950.

In the case of livestock, there was also a slight growth in the seasonally adjusted physical volume of marketings,

so that a 22 percent rise over last year's price average was accompanied by a corresponding increase in cash receipts from livestock sales. It is to these that the expansion of farm income can be ascribed. The seasonally adjusted volume of crops marketed in the first 9 months of 1951 was appreciably below the 1950 volume, and, moreover, crop prices changed substantially less from last year's average than did those for livestock. Accordingly, the crop component of marketing receipts was a little lower than in 1950.

Entrepreneurial income in nonagricultural industries did not keep pace with the general advance in the first 3 quarters of 1951. Owing principally to the slackened rate of consumer spending during the spring and summer, noncorporate business earnings in wholesale and retail trade showed no gain at all over last year, despite a bulge in the first quarter. Proprietors in manufacturing fared relatively well, but have minor weight in the noncorporate business total.

For the first three quarters as a whole, dividend payments at annual rates were near the level of disbursements during 1950. The latter had included extraordinarily high year-end disbursements, partly in anticipation of the higher personal income tax rates effective in 1951.

The maintenance of high dividends this year occurred despite a substantial drop in profits after tax resulting in part from the greatly increased Federal corporate income tax rates. In this connection, it may be noted that the decrease in profits after tax also reflected to a large extent lower inventory profits in 1951 than in 1950. These inventory profits, which are equivalent to the excess of the replacement cost of goods sold over their book cost, may be somewhat discounted by corporate management in determining dividend declarations. If inventory profits are eliminated, the drop in profits after taxes as compared with 1950 appears much smaller, and profits before taxes, so adjusted—as included in the national income—actually show a percentage increase somewhat larger than for all other distributive shares combined.

Personal interest income increased a little more than dividends, but likewise contributed insignificantly to the general advance from 1950 to 1951. Only transfer payments, however, were actually lower this year than last. Their decline—about \$2½ billion—reflected primarily the inclusion in 1950 of the large veterans' life insurance dividend disbursements, as other changes were approximately offsetting. Unemployment compensation benefits dropped, and State veterans' bonuses virtually disappeared but benefit payments under the amended Old-Age and Survivors' Insurance program nearly doubled.